IMAGING PERFORMED BY

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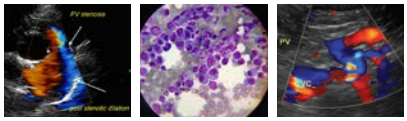

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
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DATE

10/28/22

PATIENT

Humphrey Peterson

SPECIES

Feline

BREED

Exotic Shorthair

SEX

Neutered Male

AGE

11/11/11

WEIGHT

8 lb 8 oz

INTERPRETED BY

Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY

Stephanie Warga RDCS, RVT

HOSPITAL NAME

Chadwell AH

REFERRING VET

Dr. Schaupp

INVOICE

42443

PRESENTING CLINICAL SIGNS

Originally presented on Oct 14 for intermittent vomiting, decreased appetite. Bloodwork then was unremarkable. Came on Oct 21 for radiographs. Appeared as though an ileus with large hard stools. Treated symptomatically with Laxatone and Metoclopramide. Rechecked on Oct 25, still not eating well. T- 101.6

Current Medications: Maropitant 8 mg QD started 10/25/22, Prednisolone 5 mg QD started 10/25/22
Lab Results: WNL.
Radiographs: Stool in colon.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Requested/Approved.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

Urinary bladder is adequately distended. It has a normal uniform wall thickness. Contents include primarily anechoic fluid with occasional echogenic non-shadowing debris, most consistent with incidental suspended lipid in a cat, possibly combined with exfoliated cells, mucous and/or small blood clots. Both sterile inflammation as well as urinary tract infection can also present with echogenic debris. No masses or cystoliths are observed. The trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

The right kidney is normal in size (4.15 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

The left kidney is normal in size (4.12 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

Adrenal Glands

Adrenal glands are bilaterally uniformly plump egg-shaped adrenals (left is 0.54 cm, right is 0.46 cm), hypoechoic in echogenicity with bilateral dystrophic mineralization noted. This is most likely a benign age-related change. This change can be caused by chronic stress/disease, so investigation for/management of other disease (chronic kidney disease, hyperthyroidism, etc.) is recommended.

Spleen

Spleen is normal in size with a swollen and scalloped/undulating capsular contour. Multifocal coalescing nodules are noted throughout the parenchyma. Splenic vasculature appears normal. Enhanced hyperechoic surrounding fat is noted.

Liver

The liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. Several discrete nodules/masses of mixed echogenicity are noted, primarily hyperechoic in echogenicity but containing multiple cysts of varying sizes. The two most prominent nodules measure approximately 2.0 cm in diameter. Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is moderately distended with anechoic bile as well as suspended and gravity dependent echogenic debris. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

Gastrointestinal

The stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) and layering. The stomach is markedly distended with primarily anechoic fluid as well as some echogenic chyme/debris. However, no evidence of foreign material or infiltrative disease is noted. Pyloric outflow tract appears patent.

The visible small intestines are normal in wall thickness and layering. Bowel is diffusely mildly fluid distended without evidence of an obstructive pattern, plication and/or visible foreign material. Small intestinal hyperperistalsis is noted. There are a few loops of small bowel that are more characteristically empty/normal in appearance, so this combination combined with other dilated loops of bowel can be suggestive of an obstruction. However, the majority of the bowel is fluid distended, which is overall more consistent with ileus.

The visible colon is normal in wall thickness (< 0.2 cm) and layering. The lumen is empty.

Pancreas

The observed pancreas is prominent (enlarged) in size, hypoechoic to surrounding tissue and irregular in shape with a swollen undulating contour. Pancreatic duct dilation is noted. Enhanced hyperechoic ill-defined surrounding fat is noted.

Free Abdomen

A scant amount of anechoic free fluid and edematous fat around the pancreas is noted.

The mesenteric lymph nodes are prominent in size with swollen capsular contour. Normal elongated shape (length to width ratio) is maintained. There is no loss of parenchymal detail.

There is no evidence of pericardial effusion in these images.

PRIMARY FINDINGS

- Acute pancreatitis
- **Diffusely fluid distended stomach and small bowel** – most consistent with gastritis/gastroenteritis secondary to metabolic disease such as pancreatitis. Other dietary indiscretion or intolerance, infection, bacterial, viral, other, parasitic or protozoal disease, toxins, etc. are also possible. Given the presence of some less distended bowel loops present, an obstruction cannot be definitively ruled out. However, there is no visible evidence of plication or foreign material to imply this.
- **Honeycomb Spleen –** This finding is strongly suggestive of infiltrative disease such as round cell neoplasia. Benign disease cannot be ruled out but is considered less likely.

SECONDARY FINDINGS

- **Feline biliary cystadenomas –** In a senior cat, these liver lesions are most consistent with multiple benign biliary cystadenomas. Malignancy cannot be ruled out but is considered less likely give lack of clinical signs and/or laboratory changes.
- **Gallbladder debris** - Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness, however, it can also be associated with hepatobiliary disease in cats and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.

- **Reactive mesenteric lymph nodes –** infiltrative neoplastic disease cannot be ruled out but is considered less likely.
- Age related adrenal changes
- Urinary bladder debris

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

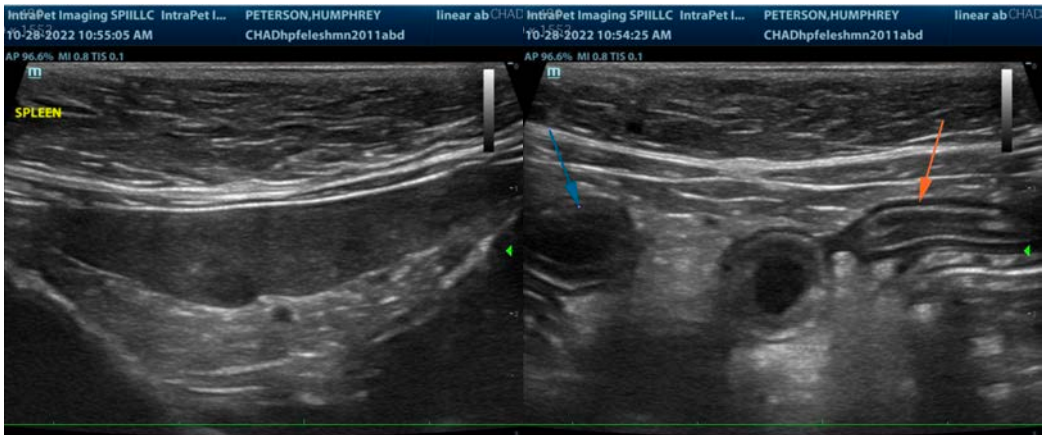
The appearance of this abdomen overall is more consistent with a metabolic ileus caused by pancreatitis and concurrent gastritis/gastroenteritis versus a foreign body obstruction. However, the latter cannot be definitively ruled out. Just in case, if patient is compliant, recommendations are to look closely under the tongue for evidence of a string or linear foreign body.

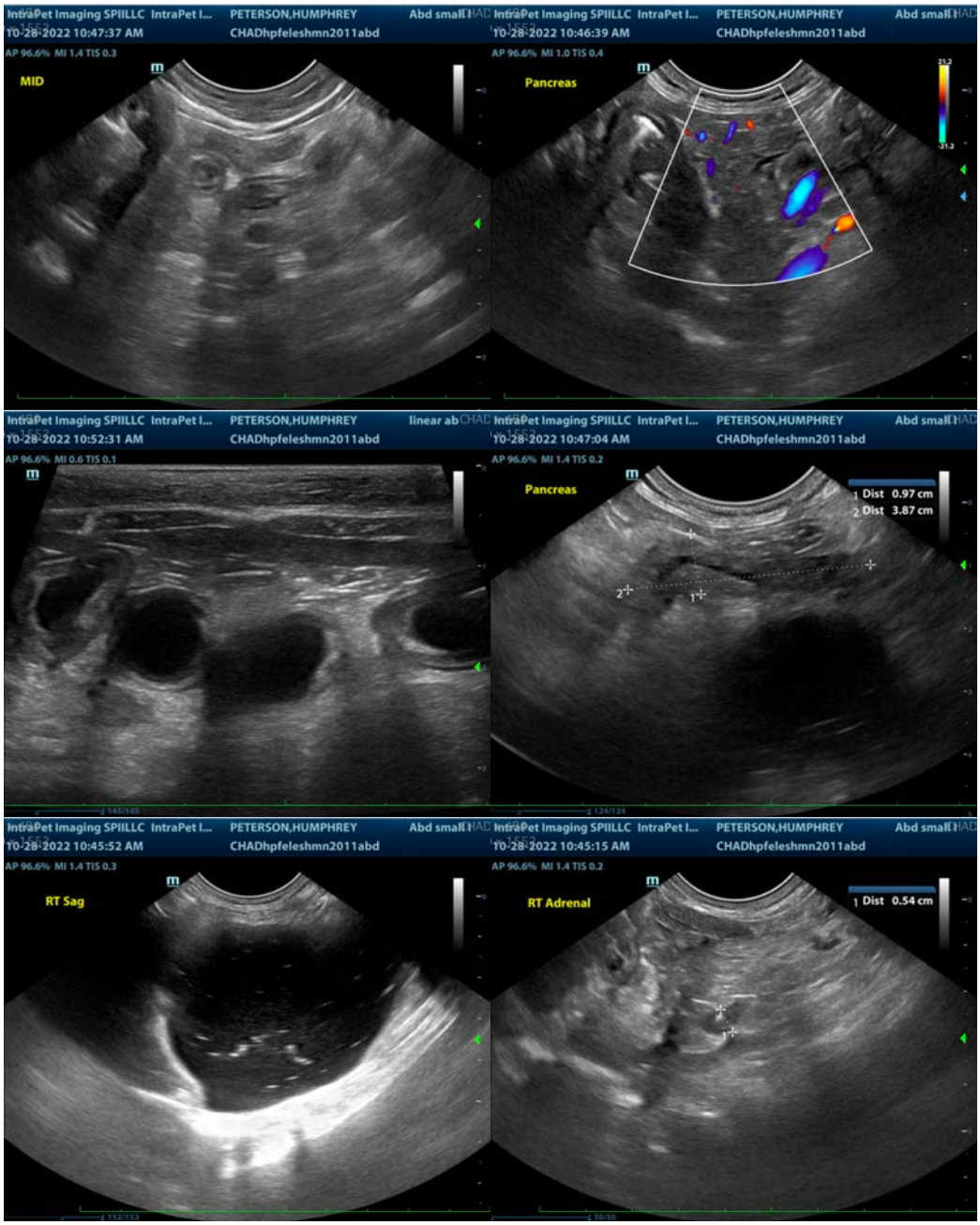
Additionally, a gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory is recommended for further evaluation of GI and pancreatic function.

A fine needle aspirate of the spleen could be considered if patient's coagulation status is appropriate.

In the meantime, medical management of pancreatitis with anti-emetics, gastroprotectants, appetite stimulants or nutritional support (including a feeding tube) as needed, pain management, broad spectrum antibiotics, and fluid therapy is recommended. If clinical signs, especially the dilated bowel persists beyond medical management of pancreatitis, recheck imaging with both x-rays and ultrasound is recommended for further evaluation of a possible (not believe to be likely) obstruction.

Given the marked gastric dilation, placement of a nasogastric tube could be considered both for gastric suction as well as trickle feeding as part of the therapy for pancreatitis.




IntraPet Imaging SPIILLC IntraPet I... PETERSON,HUMPHREY Abd small
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AP 96.6% MI 1.4 TIS 0.3
MID
IntraPet Imaging SPIILLC IntraPet I... PETERSON,HUMPHREY Abd small
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Pancreas
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AP 96.6% MI 1.4 TIS 0.2
Pancreas
1 Dist 0.97 cm
2 Dist 3.87 cm
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AP 96.6% MI 1.4 TIS 0.3
RT Sag
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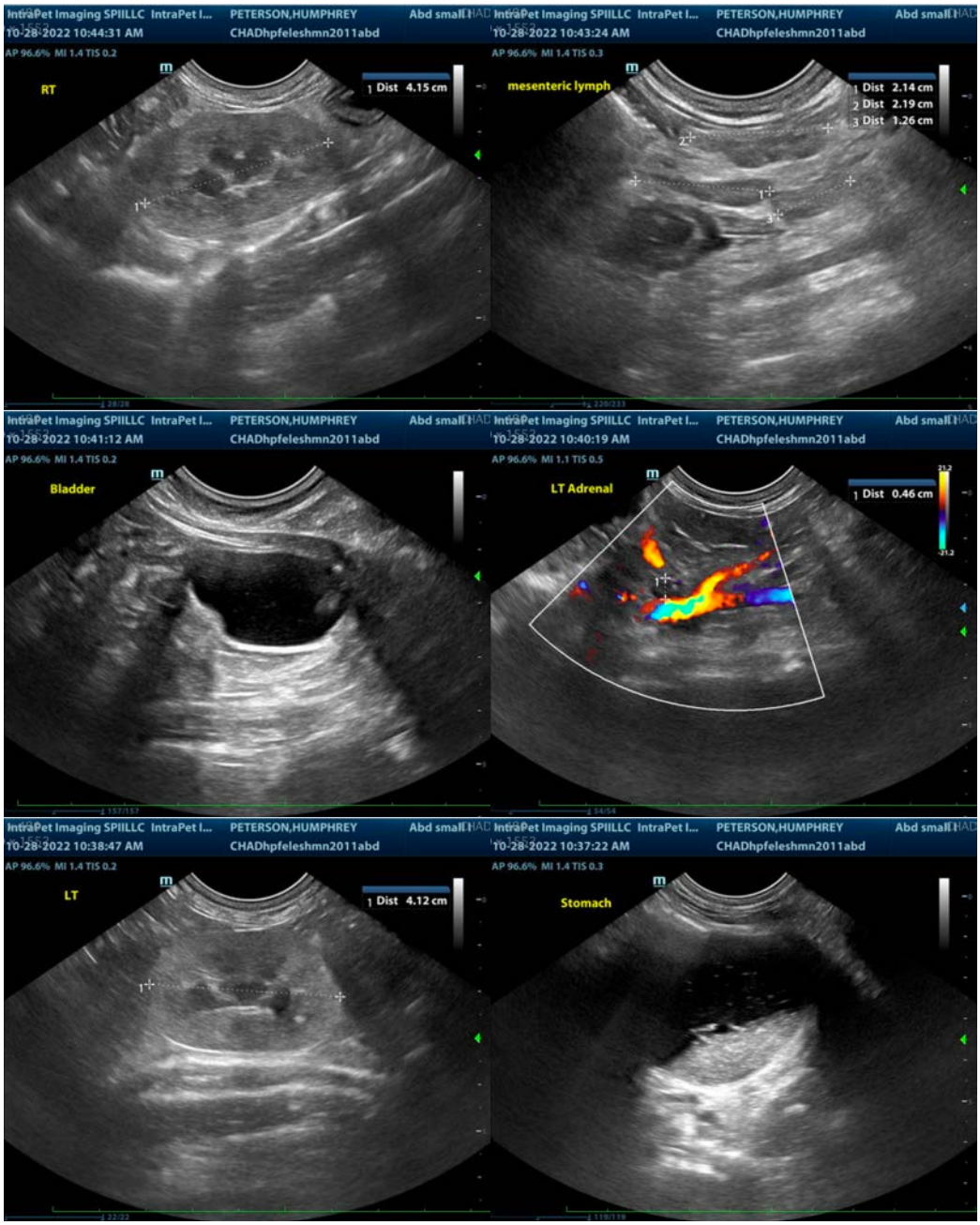
AP 96.6% MI 1.4 TIS 0.2
RT Adrenal
1 Dist 0.54 cm


IntraPet Imaging SPIILLC IntraPet I... PETERSON,HUMPHREY Abd small
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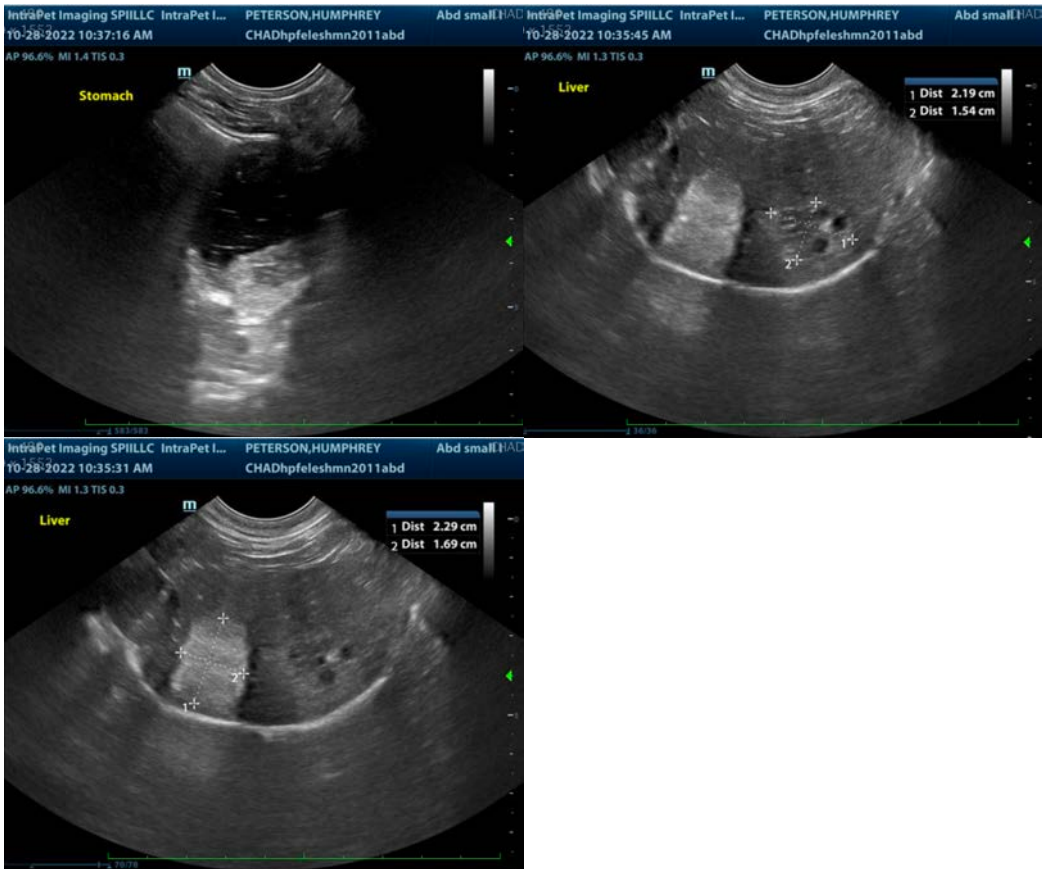
AP 96.6% MI 1.4 TIS 0.2
RT
1 Dist 4.15 cm
IntraPet Imaging SPIILLC IntraPet I... PETERSON,HUMPHREY Abd small
10-28-2022 10:43:24 AM CHADhpfeleshmn2011abd
AP 96.6% MI 1.4 TIS 0.3
mesenteric lymph
1 Dist 2.14 cm
2 Dist 2.19 cm
3 Dist 1.26 cm
IntraPet Imaging SPIILLC IntraPet I... PETERSON,HUMPHREY Abd small
10-28-2022 10:41:12 AM CHADhpfeleshmn2011abd
AP 96.6% MI 1.4 TIS 0.2
Bladder
IntraPet Imaging SPIILLC IntraPet I... PETERSON,HUMPHREY Abd small
10-28-2022 10:40:19 AM CHADhpfeleshmn2011abd
AP 96.6% MI 1.1 TIS 0.5
LT Adrenal
1 Dist 0.46 cm
IntraPet Imaging SPIILLC IntraPet I... PETERSON,HUMPHREY Abd small
10-28-2022 10:38:47 AM CHADhpfeleshmn2011abd
AP 96.6% MI 1.4 TIS 0.2
LT
1 Dist 4.12 cm
IntraPet Imaging SPIILLC IntraPet I... PETERSON,HUMPHREY Abd small
10-28-2022 10:37:22 AM CHADhpfeleshmn2011abd
AP 96.6% MI 1.4 TIS 0.3
Stomach



The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance please contact me.

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